



## THEORETICAL FUNDAMENTALS OF MATHEMATICAL FORMATION CONCEPTS OF PRESCHOOL CHILDREN

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### Abstract

*This article advocates for the integration of physical education and elementary mathematical concepts in preschool education to promote the holistic development of children. It underscores the importance of physical exercises, active games, and sports activities in fostering physical development and cultural learning, while also emphasizing the incorporation of simple mathematical concepts into these activities. The article highlights the need for effective model programs for teaching mathematics and emphasizes the developmental benefits of integrating various subjects within the preschool curriculum. It also outlines the specifics of the mathematical curriculum for the preparatory group and underscores the significance of practical work and assignments in aiding children's learning and understanding of mathematical concepts.*

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Physical education is important in raising children of preschool age to be healthy and well-rounded. Physical education of children has a special place in the educational system, it prepares the ground for the child's health, proper physical development, high culture and deep learning of the knowledge provided in the preschool education system.

The main content of physical exercises in preschool education is physical education, active games and sports games, sports exercises, simple tourism. ,counting to 6,7,8,9,10, near, far, high, low, circle, circle, straight line, standing straight, triangle, rectangle, etc. hears and speaks words, these words are also used in the formation of elementary mathematical concepts for preschool children.

Therefore, the process of teaching elementary mathematical knowledge to children in the model program on the formation of elementary mathematical concepts taught in junior, middle, senior and preparatory groups in pre-school educational institutions should be effective. in order to ensure that the following elementary mathematical concepts are more firmly established in the children's minds while playing games:

Strengthening the knowledge and skills acquired about number, count, set, amount, shape, quantitative imagination, time is relevant and important nowadays, and the interrelation of subjects in preschool education improves the effectiveness of children's knowledge in one or another subject. serves to increase. Model programs of general methodological theoretical foundations for the development of elementary mathematical ideas have been created in pre-school educational institutions, and many studies are being conducted on this issue.

In the preschool group, children learn some hidden important mathematical relationships, relationships, connections between "equal", "large", "small", "whole and fractional" quantities, the connection between measurement quantities and numbers. special attention is paid to the development of the ability to identify connections. Formation of the mathematical imagination of children of preschool age creates a basis for raising their logical thinking to a new level and for the development of their mental activity in general. Children are taught to count visually and internally. Their ability to see with their eyes and quickly distinguish shapes develops.

At this age, it is very important to develop mental abilities, independent thinking, aspects such as analysis, synthesis, comparison, discussion, drawing conclusions, and quantitative imagination. The program for the development of elementary mathematical imagination of the pre- school preparatory group envisages the generalization, systematization, expansion and deepening of the knowledge acquired by children in previous groups.

2 lessons a week in mathematics in the preparatory group for school, year 72 training sessions will be held.

Duration of classes: the first - 30 minutes, the second - 20 25 minutes.

Each training structure is defined by its content. It serves to learn new material, repeat and consolidate what has been learned, and check the acquired knowledge of children. It is characteristic mathematical training conducted in the preparatory group. Practical work, assignments related to the organization of an exhibition can also be considered as examples. A teacher-educator can make corrections to them, taking into account the instructions he has.

One of the goals of teaching children mathematics and improving the educational process in preschool education is the development of mathematical concepts in children.

Mathematical knowledge in children makes it possible to study the world in a deeper and fuller way without being separated from life. The process of solving mathematical problems in its essence requires independent thinking, it builds resilience, it is creativ abilities develop. The level of development of mathematical concepts varies from person to person. Its formation requires constant training. These exercises begin with family and preschool education. If there are parents in the family, there will definitely be an educator-pedagogue in preschool education.

Therefore, every pedagogue should be armed with the theory of pedagogy and modern pedagogical technologies of teaching (interactive methods, individual approach, teaching independent practice, etc.) Application of theoretically based modern pedagogical technologies and modern information technologies to the educational process has become the most urgent issue today.

In conclusion, the integration of physical education and elementary mathematical concepts in preschool education is indispensable for the holistic development of children. By combining physical exercises, active games, and sports activities with simple mathematical concepts, children's physical, mental, and cognitive development can be effectively promoted. Effective model programs for teaching mathematics, along with the incorporation of practical work and assignments, are essential to aid children's learning and understanding of mathematical concepts. It is crucial to recognize the significance of comprehensive educational approaches that cater to the diverse developmental needs of preschool-aged children.

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